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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/512,042

10/21/2004

Yosef Magal

P-5247-US

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49443 7590 08/21/2008  
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EXAMINER

CAMPBELL, THOR S

ART UNIT

PAPER NUMBER

3742

MAIL DATE

DELIVERY MODE

08/21/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/512,042	<b>Applicant(s)</b> MAGAL, YOSEF	
	<b>Examiner</b> /Thor S. Campbell/	<b>Art Unit</b> 3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 6/17/08.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Middleman et al. (US4 379220) in view of Phillips et al. and applicant's admitted prior art.

Middleman discloses a tubular heater/thermostat construction including a bi-metal thermostat, however does not disclose the specific details of the claimed double bi-metal thermostats.

It is noted that applicant admits that:

*"Both of the switches in the thermostat of the present invention jump without dither between the on and off state, when mechanically actuated by the thermal expansion/contraction of one of the bimetal components, Mechanisms are in widespread use which achieve fast and decisive switching, and so to prevent sparking and early failure of the contact points, As no novelty, is claimed for any such mechanism, the following specification does not detail the mechanical method used to utilize movement of the bimetal devices to operate either of the two switches" ;*  
and further:

*"Referring now also to FIG. 2, there are seen both extended length bimetal devices. The first device 14, as in prior art, comprises a fast pair of components 22.. 24 made of materials being greatly different in the coefficient of linear thermal expansion. Preferred metals are brass for the outer tube 22, having a coefficient of linear thermal expansion of about 0.019 mm per meter per degree Centigrade, and an invar steel central rod 24 having a coefficient of less than 0.001 ..*

*The outer tube 22 at its proximate end is firmly joined to the metal plate 26. The central rod 24 is firmly joined at its distal end only to the outer tube 22. The proximate*

Art Unit: 3742

*end of the rod 24 projects into the structure 28 to open the fast switch 20 when the fast bimetal device 14 reaches a first desired temperature, for example 600 - 80°C.*

*The second pair of components 30, 32 is made of materials being moderately different in their coefficient of linear thermal expansion. The second bimetal device 16 is attached inside the fast bimetal device 14*

*Regarding the second pair of components 30, 32, preferred metals are stainless steel for the first of the components 30 having a coefficient of linear thermal expansion of about 0.011 mm per meter per degree Centigrade, and an invar steel central rod having a coefficient of less than 0.001.*

*One of the second bimetal components 30 also projects into the structure 28 at a proximal end to open the second switch 18 if the second bimetal device 16 reaches a second temperature higher than the first desired temperature due to failure of the fast bimetal device 14 to open the first electric switch 20.*

*At their distal end the pair of second bimetal components 30, 32 are mechanically joined,*

*The component 32 not projecting into the structure 28 is firmly attached near the proximal end inside the outer tube 22. “*

Phillips discloses the claimed invention including, inter alia, a first bimetal device of a second bimetal device comprising of a second pair of components made of materials being moderately different in their coefficient of linear thermal expansion, one of said second components also projecting into said structure to open said second switch of said second bimetal device reaches a second temperature higher than said first desired temperature, and further including a manual reset.

It would have been obvious to one having ordinary skill and creativity to modify the structure of the Phillips thermostat to fit in the device of Middleman in order to provide a secondary protection against overheating the water in the tank. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use stainless steel, brass and invar steel as claimed, since it has been held to be within the general skill or a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Thor S. Campbell/ whose telephone number is 571-272-4776. The examiner can normally be reached on Mon-Fri 5:30AM-2:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thor S. Campbell/  
Primary Examiner  
Art Unit 3742

tsc